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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,387	10/07/2005	Hideyuki Inose	482782007600	9265

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EXAMINER	
FIELDS, DORON D	

ART UNIT	PAPER NUMBER
4143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,387	INOSE ET AL.	
	Examiner	Art Unit	
	DORON D. FIELDS	4143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07 October 2005 and 09 April 2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. This action is in reply to the application filed on 07 October 2005.

2. Claims1-19 are currently pending and have been examined.

Information Disclosure Statement

3. The Information Disclosure Statements filed on 07 October 2005 and 09 April 2007 have been considered. An initialed copy of the Form 1449 is enclosed herewith.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Fig 3, item 231.
- Fig 3, item 289.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

- Page 5, lines 30-31 states “a pair of tapered roller bearings 17 and 19 (bearings) axially disposed and rotatably supporting the shaft 5”; according to Fig 1, bearings 17 and 19 support shaft 7.

- Page 6, lines 19 states “the helical gear 27 abuts inner races 31 and 33”; according to Fig 1, inner races 31 and 33 abut gear 25.
- Page 6, lines 29-32 state “the shaft 5 … further rotatably supported by the rear cover 43 by means of the bearing 19”; according to Fig 1, shaft 5 is supported by bearing 15.
- Page 7, lines 19-20 state “shaft 5 only requires relatively compact tapered roller bearings 17 and 19”; according to Fig 1, bearings 17-19 support shaft 7.
- Page 12, line 33 and page 15, line 237 refer to “washers 237”; the reference number is not shown in Fig 3, which displays parts 231.
- Page 14, lines 31-34 state “the bevel gear 203 is co-tightened by bolts 291 … and the hub 291 is supported by …”; according to Fig 3, the bolt is item 289.
- Page 14, lines 31-32 mention “hollow shaft 299”; the reference number is not shown in Fig 3.
- Page 15, lines 10-11 state hollow shaft 101; the reference number is not shown in Fig 3.
- Page 15 line 11 states “needle bearings 229” while page 12, line 14 refers to “ball bearings 229”
- Page 15, line 14 and line 34 refer to a “propeller shaft 331”. While page 11 lines 26-27 state that "a third embodiment ... will be described hereinafter with reference to Figs 3 through 7", shaft 331 is shown in Figs 8 and 9.
- Page 15, line 15 refers to "spline portion 103 and a seal 105"; neither is shown in Fig 3.
- Page 15, lines 30-31 refer to a “transmission 317” and “differential 341”. While page 11 lines 26-27 state that "a third embodiment ... will be described hereinafter with reference to Figs 3 through 7", transmission 317 and differential 341 are shown in Figs 8 and 9.

Appropriate correction is required.

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is “support structure and gear mechanism having the same”; having the same what?

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 6, and 17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The term "disposed in the vicinity of" in claims 1 and 6 is a relative term which renders the claims indefinite. The term "disposed in the vicinity of" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of examination, "in the vicinity of" is interpreted as within the transfer case housing.

11. Regarding claim 17, the phrase "needle-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-7 rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (PGPUB: US 2002/0078792 A1).

Claim 1

Kobayashi, as shown, discloses the following limitations:

A support structure comprising:

- *an input shaft* (see at least Fig 1, item 31a) *and an output shaft* (see at least Fig 1, item 35) *for input and output of driving force;*
- *a power transmission device coupling the input shaft with the output shaft* (see at least Fig 1, items 32 and 33)*;*
- *a housing member housing the input shaft, the output shaft and the power transmission device* (see at least Fig 1)*;*
- *a pair of first bearings aligned in an axial direction, the first bearings rotatably supporting the input shaft with respect to the housing member* (see at least Fig 1, bearings of item 31a)*; and*
- *a pair of second bearings aligned in an axial direction, the second bearings rotatably supporting the output shaft with respect to the housing member* (see at least Fig 1, bearings of item 35)*,*
- *wherein the power transmission device is disposed between the pair of the first bearings* (see at at least Fig 1, items 32 and 33 and bearings of item 31a)*, and*
- *at least any one pair of the first bearings and the second bearings are disposed in the vicinity of an input/output device for input/output the driving force to the input shaft and the output shaft* (see at least Fig 1).

Claim 2

Kobayashi, as shown, discloses the following limitations:

The support structure of claim 1 (shown above in the rejection of claim 1)*, wherein:*

- *the input/output device is a change-direction transmission device* (see at least Fig 1 items 30 and 31 and page 3, paragraph 0025 “The gear mechanism portion 7 comprises a pair of direction changing gears (first and second direction changing gears) 30, 31 comprising in turn hypoid gears and a pair of gears (first and second gears) 32, 33 comprising in turn helical gears”).

Claim 3

Kobayashi, as shown, discloses the following limitations:

The support structure of claim 1 (shown above in the rejection of claim 1)*, wherein:*

- *the power transmission device is disposed so as to respectively abut shaft side members of the pair of the second bearings* (see at least Fig 1).

Claim 4

Kobayashi I, as shown, discloses the following limitations:

The support structure of claim 1 (shown above in the rejection of claim 1)*, wherein:*

- *the housing member comprises a wall portion* (see at least Fig 1)*, and*
- *the first bearings are rotatably supported by the wall portion* (see at least Fig 1).

Claim 5

Kobayashi, as shown, discloses the following limitations:

The support structure of claim 4 (shown above in the rejection of claim 1)*, wherein:*

- *the wall portion further comprises an opening* (see at least Fig 1)*, and*
- *the input shaft penetrates the opening so as to be coupled with the output shaft* (see at least Fig 1).

Claim 6

Kobayashi, as shown, discloses the following limitations:

A gear mechanism:

- *a change-direction gear set to change a rotation direction of a driving force at a right angle, the change-direction gear set comprising a first change-direction gear and a second change-direction gear* (see at least Fig 1 items 30 and 31 and page 3, paragraph 0025 “The gear mechanism portion 7 comprises a pair of direction changing gears (first and second direction changing gears) 30, 31 comprising in turn hypoid gears and a pair of gears (first and second gears) 32, 33 comprising in turn helical gears”)*;*
- *an input shaft rotating coaxially and integrally with the second change-direction gear* (see at least Fig 1, item 31a)*;*
- *an output shaft* (see at least Fig 1, item 35) *disposed in parallel with the input shaft* (see at least Fig 1, item 31a)*;*

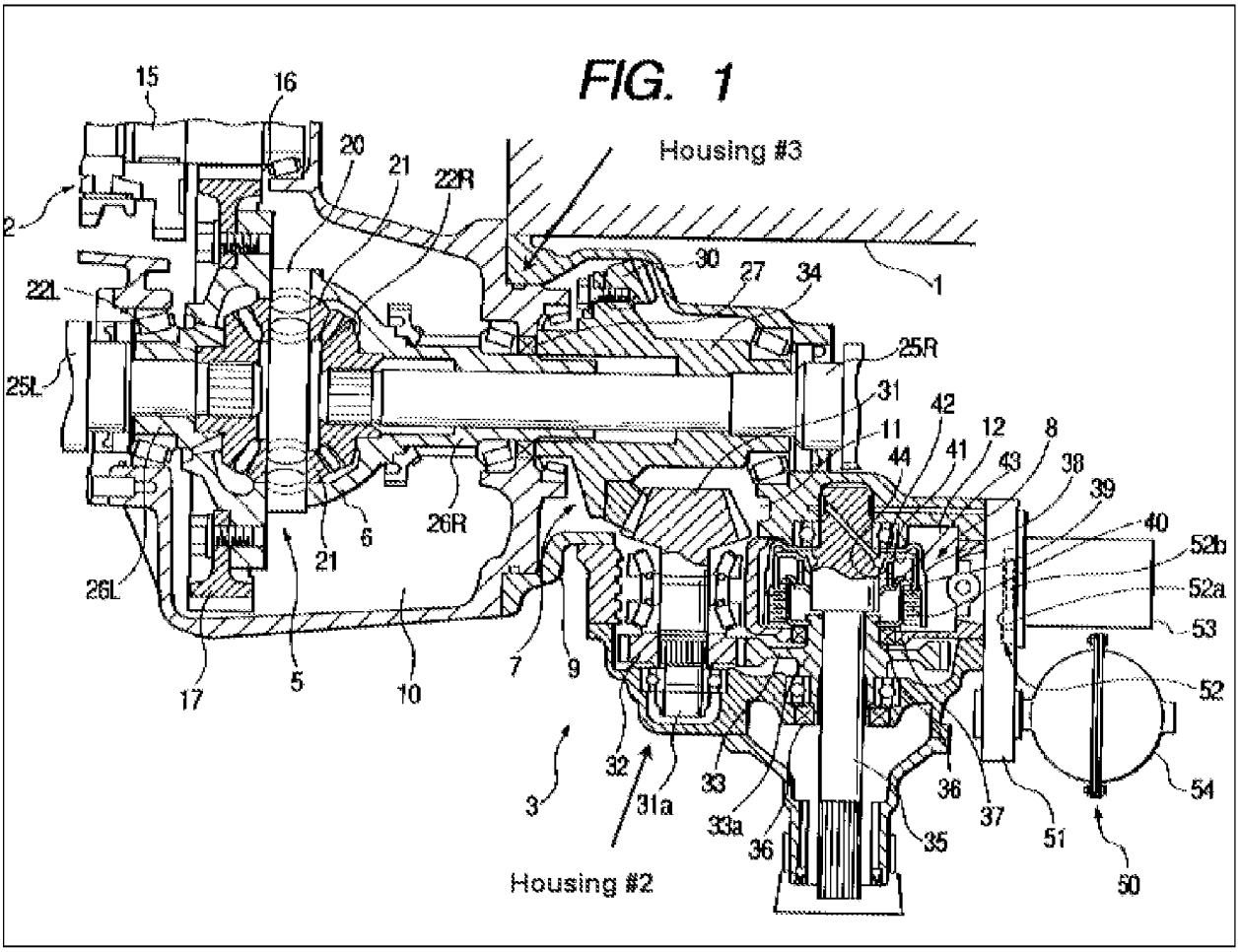
- *a power transmission device coupling the input shaft with the output shaft* (see at least Fig 1, items 32 and 33)*;*
- *a housing member housing the input shaft, the output shaft and the power transmission device* (see at least Fig 1)*;*
- *a pair of first bearings aligned in an axial direction, the first bearings rotatably supporting the input shaft with respect to the housing member* (see at least Fig 1, bearings of item 31a)*;*
- *a pair of second bearings aligned in an axial direction, the second bearings rotatably supporting the output shaft with respect to the housing member* (see at least Fig 1, bearings of item 35)*; and*
- *a pair of third bearings rotatably supporting the first change-direction gear with respect to the housing member* (see at least Fig 1)*,*
- *wherein the power transmission device* (see at least Fig 1, items 32 and 33) *is disposed between the pair of the first bearings, and at least any one pair of the first bearings and the second bearings are disposed in the vicinity of the second change-direction gear* (see at least Fig 1).

Claim 7

Kobayashi, as shown, discloses the following limitations:

The gear mechanism of claim 6 (shown above in the rejection of claim 6)*, wherein:*

- *the housing member comprises a first housing member, a second housing member and a third housing member* (see at least Fig 1)*,*
- *one of the pair of the first bearings, one of the pair of the second bearings and one of the pair of the third bearings are housed in the first housing member* (see at least Fig 1; entire housing)*,*
- *another of the pair of the first bearings and another of the pair of the second bearings are housed in the second housing member* (see at least modified Fig 1 below) *, and*
- *another of the pair of the third bearings is housed in the third housing member* (see at least modified Fig 1 below).



14. Claims 8, 10, 11, 14, and 15, rejected under 35 U.S.C. 102(b) as being anticipated by Hideyo (PUB: JP 59-069553).

Claim 8

Hideyo, as shown, discloses the following limitations:

A gear mechanism comprising:

- *a change-direction gear set to change a rotation direction of a driving force at a right angle, the change-direction gear set comprising a first change-direction gear and a second change-direction gear* (see at least Fig 1 item 6)*;*
- *a first gear rotating coaxially and integrally with the second change-direction gear* (see at least Fig 1 item 7)*;*

- *a second gear disposed in parallel with and engaged with the first gear* (see at least Fig 1 item 8)*;*
- *a third gear disposed in parallel with and engaged with the second gear* (see at least Fig 1 item 9)*; and*
- *a casing housing the change-direction gear set, the first gear, the second gear and the third gear* (see at least Fig 1).

Claim 10

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, further comprising:*

- *a pair of bearings* (see at least Fig 1)*,*
- *wherein at least any one of the first gear, the second gear and the third gear is disposed between the pair of the bearings* (see at least Fig 1, item 7).

Claim 11

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 10 (shown above in the rejection of claim 10)*, wherein:*

- *at least any one of the first gear, the second gear and the third gear is smaller in diameter than the bearings* (see at least Fig 1, item 7).

Claim 14

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

- *at least any one of the first change-direction gear and the second change-direction gear is rotatably supported by a pair of bearings receiving force in an axial direction* (see at least Fig 1 item 6).

Claim 15

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

- *the first gear is disposed between a pair of bearings rotatably supporting the second change-direction gear and rotatably supported* (see at least Fig 1, items 6 and 7).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Kobayashi (PGPUB: US 2002/0078792 A1).

Claim 9

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8),

Hideyo does not disclose the following limitation, but Kobayashi, however, as shown, does:

- *wherein the first change-direction gear coupled with an output of a transmission of a vehicle* (see at least Fig 1 item 30) *to transmit the output to the third gear, and*
- *further comprising a seal to prevent intrusion of oil in the transmission* (see at least Fig 1 item 27).

It would have been obvious to one skilled in the art at the time of the invention to introduce the gear mechanism of Hideyo to the power transfer assembly of Kobayashi as it provides for better control in the transfer of speed and torque.

18. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Palazzolo (US-PAT-NO: 6,605,018 B2).

Claim 12

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

Hideyo does not disclose the following limitation, but Palazzolo, however, as shown, does:

a plane formed by a rotation axis of the first gear (see at least Fig 1A and 1B item 40) *and a rotation axis of the second gear* (see at least Figs 1A and 1B item 38) *and another plane formed by the rotation axis of the second gear* (see at least Figs 1A and 1B item 38) *and a rotation axis of the third gear* (see at least Figs 1A and 1B item 28) *form an angle smaller than 180 degrees and the rotation axis of the third gear is disposed in a direction away from the rotation axis of the first change-direction gear* (see at least Figs 1A and 1B item 56).

It would have been obvious to one skilled in the art at the time of the invention to lay out the gear mechanism transfer device of Hideyo using a layout shown by Palazzolo as the way in which the gears are organized is a matter of design variation determined by the shape and space of the device to which the gear mechanism is applied.

Claim 13

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

Hideyo does not disclose the following limitation, but Palazzolo, however, as shown, does:

the second gear and the third gear are disposed offset in respective perpendicular directions relative to the a rotation axis of a power transmission member coupled with the first change-direction gear (see at least Fig 1B)*,*

a rotation axis of the first gear is disposed offset in a direction away from the first change-direction gear (see at least Fig 1B),

a rotation axis of the second gear is disposed offset (see at least Fig 1B) *in a direction closer to the first change-direction gear than the rotation axis of the first gear, and*

a rotation axis of the third gear is disposed offset in a direction more distant from the first change-direction gear than the second gear (see at least Fig 1B).

Palazzolo teaches setting gears offset with respect to a reference rotation axis. It would have been obvious to one skilled in the art at the time of the invention to lay out the gear mechanism transfer device of Hideyo using a nonlinear layout shown by Palazzolo as the way in which the gears are organized is a matter of design variation determined by the shape and space of the device to which the gear mechanism is applied.

19. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Tsukasa (PUB: JP 04-203659).

Claim 16

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

Hideyo does not disclose the following limitation, but Tsukasa, however, as shown, does:

at least any one of the first change-direction gear and the second change-direction gear comprises a regulation device (see at least Fig 1 item 68) *for regulating tooth contact and pressure of the change-direction gear set by changing an axial direction.*

It would have been obvious to one skilled in the art at the time of the invention to introduce the positioning regulator of Tsukasa to the change direction gear of Hideyo to regulate a position in the axial direction (per the abstract of Tsukasa, paragraph 57).

20. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Miller (US-PAT-NO: US 4,286,481 A).

Claim 17

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

Hideyo does not disclose the following limitation, but Miller, however, as shown, does:

a pair of bearings supporting the second gear are roller bearings having cylindrical or needle-like rolling bodies (see at least Fig 2 item 28).

It would have been obvious to one skilled in the art at the time of the invention to introduce the roller bearing of Miller to the gear mechanism of Hideyo as it is well known in the art to use suitable bearings (*e.g.,* ball bearings, roller bearings, thrust bearings, etc) based on the force and speed which they require to support.

21. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Miller (US-PAT-NO: US 4,286,481 A), and further in view of Hickey et al. (US-PAT-NO: US 4,283,963).

Claim 18

Hideyo/Miller, as shown, discloses the following limitations:

The gear mechanism of claim 17 (shown above in the rejection of claim 17)*, further comprising:*

Hideyo/Miller does not disclose the following limitation, but Hickey et al., however, as shown, does:

a positioning device configured to position the roller bearings in an axial direction (see at least abstract, paragraph 57, “The axial position of each of the anti-friction bearings is adjustable by virtue of a semi-cylindrical bearing retainer cap (40)”).

It would have been obvious to one skilled in the art at the time of the invention to introduce the positioning devices of Hickey to the gear mechanism of Hideyo/Miller as it is well known in the art to use suitable bearings, (based on the desired force and torque) and washers (as a locking device, spacer, wear pad, etc) as applicable.

22. Claim 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Hideyo (PUB: JP 59-069553) in view of Yokel (US-PAT-NO: US 3,803,934).

Claim 19

Hideyo, as shown, discloses the following limitations:

The gear mechanism of claim 8 (shown above in the rejection of claim 8)*, wherein:*

Hideyo does not disclose the following limitation, but Yokel, however, as shown, does:

any of the first gear, the second gear and the third gear are helical gears (see at least abstract, paragraph 57, "The input shaft carries a helical, tapered pinion gear while a reversing lay-shaft carries a helical cylindrical gear, both gears are in constant mesh with a larger tapered, helical gear").

It would have been obvious to one skilled in the art at the time of the invention to exchange a gear of Hideyo with a helical gear of Yokel as a choice of gears to be used in power transmission (*e.g.,* spur, helical, bevel, hypoid, etc) to meet design needs is well known in the art (*e.g.,* to allow use of non-parallel shafts).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (DE 1,284,804) discloses a gear mechanism.
- (DE 1,812,232) discloses a gear mechanism
- (JP 39-35089) discloses a gear mechanism.
- Masaharu (PUB-NO: JP 04-249656) discloses a gear mechanism.
- Toshio (PUB-NO: JP 2002-187446) discloses a power distribution unit for a four-wheel drive vehicle.
- Kosaku et al. (PUB-NO: JP 2002-012382) discloses a geared elevator structure.
- Nagai et al. (PGPUB-NO: US 2002/0162413 A1) discloses a geared motor
- Kobayashi (PGPUB-NO: US 2002/0086763 A1) discloses a power transmission apparatus for a four-wheel fdrive vehicle.
- Muraoka et al. (US-PAT-NO: 4,428,452) discloses a four-wheel-drive system for a vehicle.
- Yamaoka et al. (US-PAT-NO: 4,867,008 A) discloses a traveling transmission case.
- Russel (US-PAT-NO: 1,830,810 A) discloses a swing traction gearing.
- Teraoka et al. (US-PAT-NO: 6,076,623 A) discloses a four-wheel drive vehicle power train.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Doron D. Fields** whose telephone number is **571.270.3107.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **JAMES A. REAGAN** can be reached at **571.272.6710**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair <http://pair-direct.uspto.gov >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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/Doron D Fields/Examiner, Art Unit 4143
February 8, 2008
/James A. Reagan/Supervisory Patent Examiner, Art Unit 4143